Fig.1

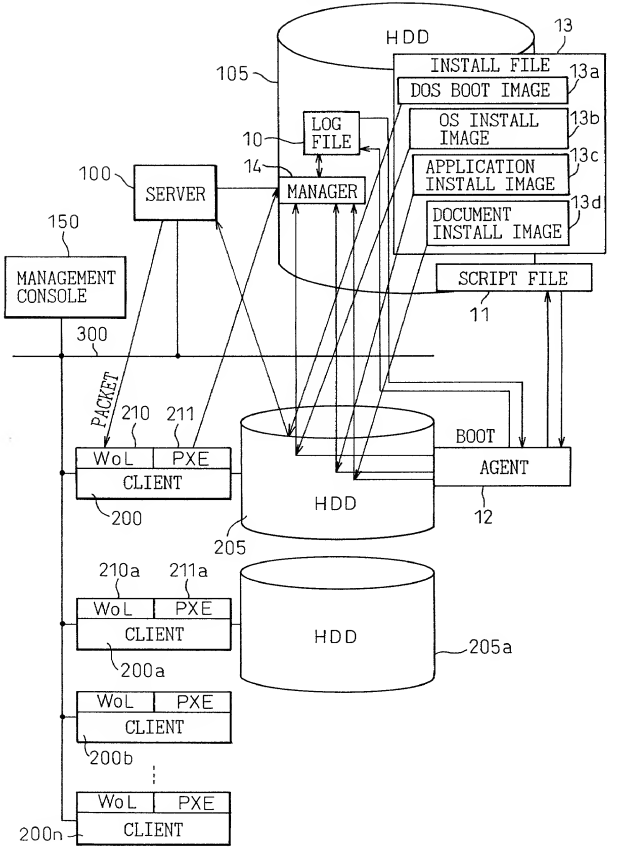
HDD
13
INSTALL FILE
13a
DOS BOOT IMAGE
13b
OS INSTALL IMAGE
13c
APPLICATION INSTALL IMAGE
13d
DOCUMENT INSTALL IMAGE
105
LOG FILE
10
14
MANAGER
100
SERVER
150
MANAGEMENT CONSOLE
SCRIPT FILE
11
300
PACKET
210
211
WoL
PXE
CLIENT
200
HDD
205
BOOT
AGENT
12
210a
211a
200a
205a
200b
200n

Fig.2

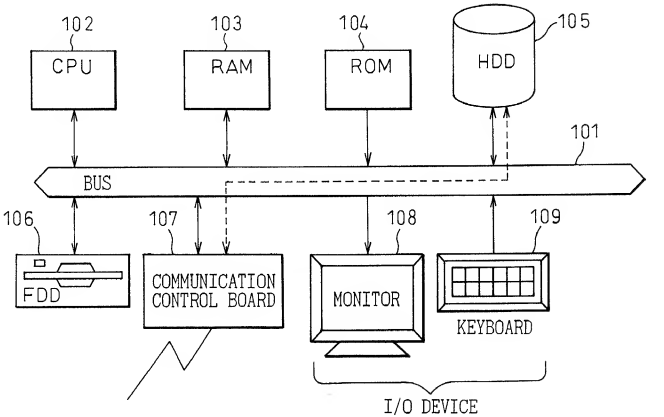
102
CPU
103
RAM
104
ROM
105
HDD
101
BUS
106
FDD
107
COMMUNICATION CONTROL BOARD
108
MONITOR
109
KEYBOARD
I/O DEVICE

Fig.3

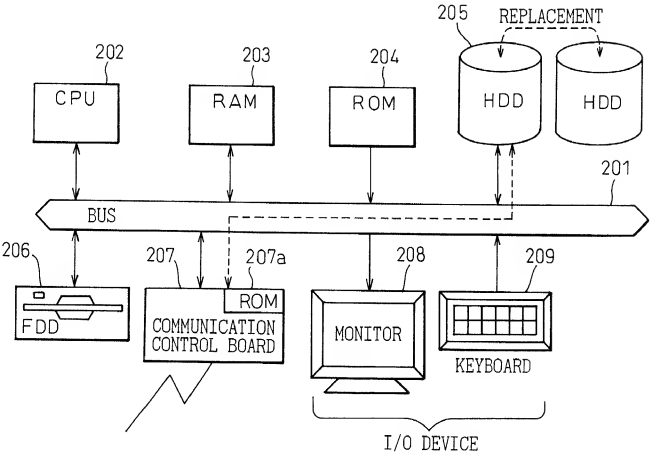
205
REPLACEMENT
202
203
204
CPU
RAM
ROM
HDD
HDD
201
BUS
206
207
207a
208
209
FDD
ROM
COMMUNICATION
CONTROL BOARD
MONITOR
KEYBOARD
I/O DEVICE

Fig.4

(1) COMPUTER NAME OF CLIENT (FOR IDENTIFICATION OF CLIENT)
(2) BACKUP DATA OF OS, APPLICATION PROGRAM & DOCUMENT
(3) LOG FILE: VERSION INFORMATION OF APPLICATION PROGRAM
(4) SERIAL NO. OF HD

Fig.5

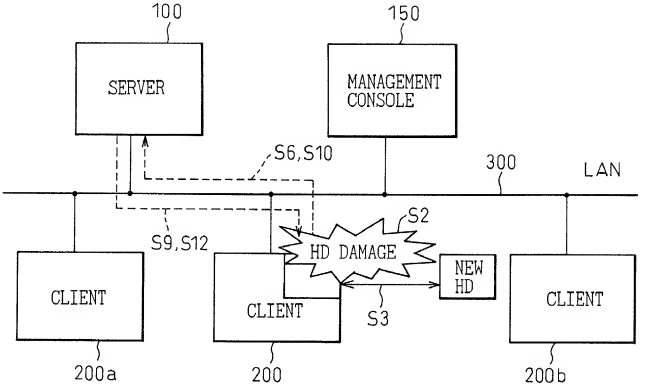
100
150
SERVER
MANAGEMENT CONSOLE
S6,S10
300
LAN
S2
S9,S12
HD DAMAGE
NEW HD
CLIENT
CLIENT
S3
CLIENT
200a
200
200b

Fig.6

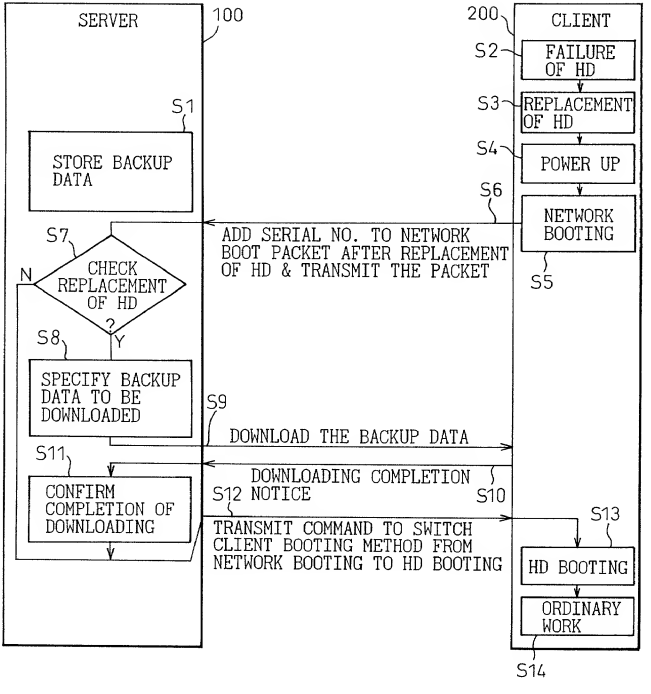
SERVER
100
CLIENT
200
S1
STORE BACKUP DATA
S2
FAILURE OF HD
S3
REPLACEMENT OF HD
S4
POWER UP
S6
NETWORK BOOTING
S5
ADD SERIAL NO. TO NETWORK BOOT PACKET AFTER REPLACEMENT OF HD & TRANSMIT THE PACKET
S7
CHECK REPLACEMENT OF HD ?
N
Y
S8
SPECIFY BACKUP DATA TO BE DOWNLOADED
S9
DOWNLOAD THE BACKUP DATA
S11
CONFIRM COMPLETION OF DOWNLOADING
DOWNLOADING COMPLETION NOTICE
S12
S10
TRANSMIT COMMAND TO SWITCH CLIENT BOOTING METHOD FROM NETWORK BOOTING TO HD BOOTING
S13
HD BOOTING
ORDINARY WORK
S14

Fig.7

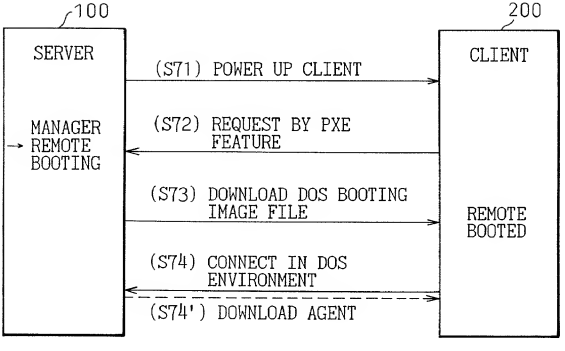
100
SERVER
MANAGER
REMOTE
BOOTING
200
CLIENT
REMOTE
BOOTED
(S71) POWER UP CLIENT
(S72) REQUEST BY PXE
FEATURE
(S73) DOWNLOAD DOS BOOTING
IMAGE FILE
(S74) CONNECT IN DOS
ENVIRONMENT
(S74') DOWNLOAD AGENT

Fig.8

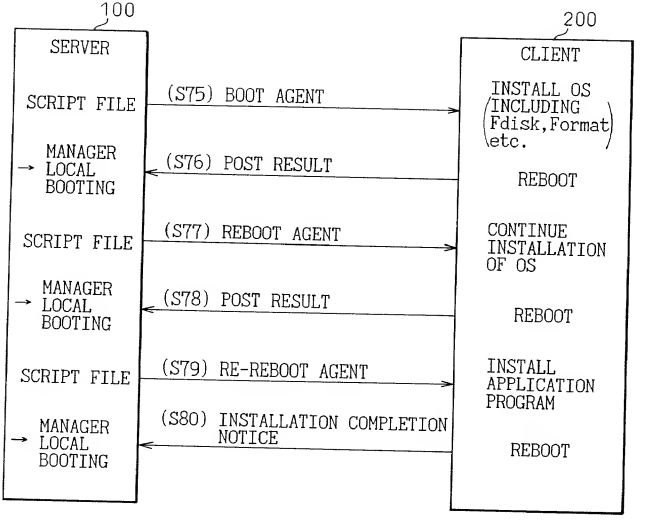
100
SERVER
SCRIPT FILE
MANAGER LOCAL BOOTING
SCRIPT FILE
MANAGER LOCAL BOOTING
SCRIPT FILE
MANAGER LOCAL BOOTING
(S75) BOOT AGENT
(S76) POST RESULT
(S77) REBOOT AGENT
(S78) POST RESULT
(S79) RE-REBOOT AGENT
(S80) INSTALLATION COMPLETION NOTICE
200
CLIENT
INSTALL OS INCLUDING Fdisk, Format etc.
REBOOT
CONTINUE INSTALLATION OF OS
REBOOT
INSTALL APPLICATION PROGRAM
REBOOT

Fig.9

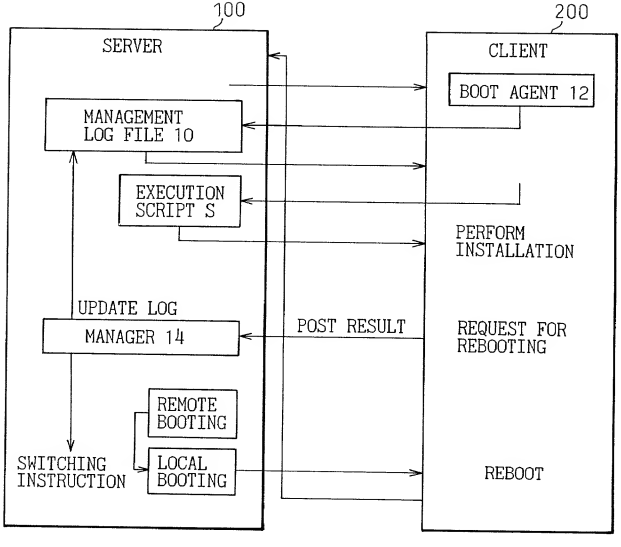
100
SERVER
200
CLIENT
BOOT AGENT 12
MANAGEMENT LOG FILE 10
EXECUTION SCRIPT S
PERFORM INSTALLATION
UPDATE LOG
MANAGER 14
POST RESULT
REQUEST FOR REBOOTING
REMOTE BOOTING
SWITCHING INSTRUCTION
LOCAL BOOTING
REBOOT

Fig.10A

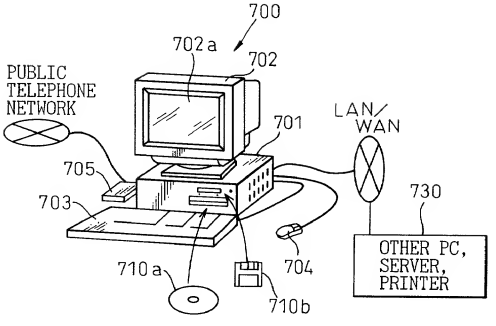

Fig.10B